

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
15 January 2004 (15.01.2004)

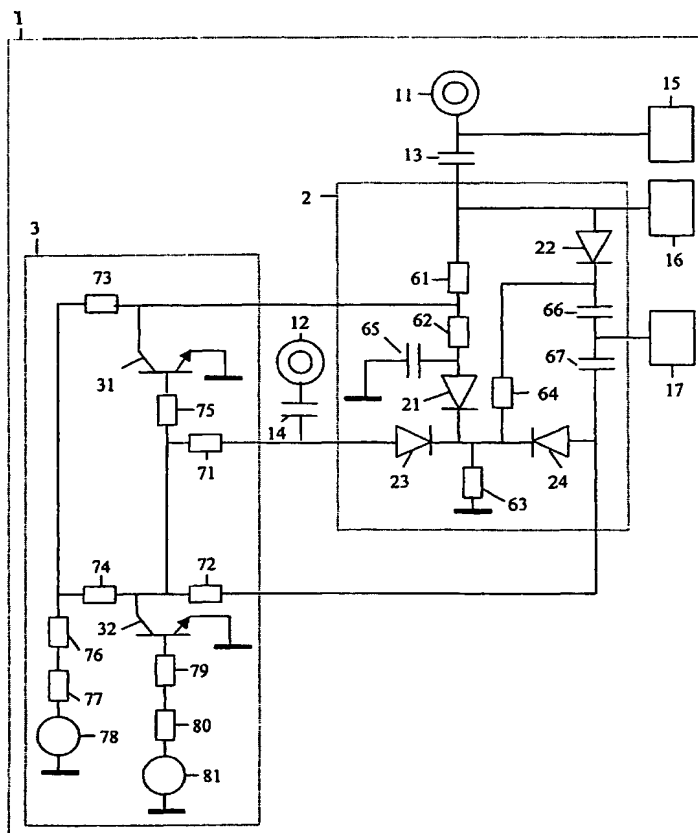
PCT

(10) International Publication Number
WO 2004/006567 A1

- (51) International Patent Classification⁷: H04N 5/44
- (21) International Application Number: PCT/IB2003/002653
- (22) International Filing Date: 24 June 2003 (24.06.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
PCT/SG02/00163 5 July 2002 (05.07.2002) SG
- (71) Applicant (for all designated States except US): KONINKLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): KWONG, Kam, C. [MY/SG]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).
- (74) Agent: STEENBEEK, Leonardus, J.; Philips Intellectual Property & Standards, Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: TELEVISION RECEIVER WITH ISOLATED INPUTS



(57) Abstract: Receivers (1) comprising television and radio inputs (11,12) for receiving television and radio signals and comprising switching circuits (2) with two first switches (21,22) to be activated in a first mode and located parallelly to the television input (11) and with two second switches (23,24) to be activated in a second mode and located anti-serially to the radio input (12), and control circuits (3) for controlling the switching circuits (2) are modified in such a way that strong radio signals can no longer disturb the television signals. Thereby one of the first switches (21) and one of the second switches (23) together isolate the inputs (11,12) from each other, and the control circuit (3) supplies a first control signal to the first switches (21,22) and supplies a second control signal to non-common points of the anti-serial second switches (23,24). This kind of receivers (1) no longer need different switching circuits (2) for shielded radio inputs and unshielded radio inputs. The switches (21,22,23,24) are diodes, and the control circuit (3) comprises transistors (31,32) for controlling the diodes.

**Declaration under Rule 4.17:**

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU,

TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

at Application No

PCT/IB 03/02653

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04N5/44

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 018, no. 470 (E-1600), 31 August 1994 (1994-08-31) & JP 06 153118 A (SEIKO EPSON CORP), 31 May 1994 (1994-05-31) abstract	1,7-10
X	--- WO 97 25781 A (PHILIPS ELECTRONICS ET AL.) 17 July 1997 (1997-07-17) cited in the application figure 3	1,2,7-10
A	--- PATENT ABSTRACTS OF JAPAN vol. 1999, no. 05, 31 May 1999 (1999-05-31) & JP 11 055582 A (ALPS ELECTRIC CO LTD), 26 February 1999 (1999-02-26) abstract -----	1,7-10

☐ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the international search

2 October 2003

Date of mailing of the international search report

10/10/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Berwitz, P

INTERNATIONAL SEARCH REPORT

Application No

PCT/IB 03/02653

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
JP 06153118	A	31-05-1994	JP	3353349 B2	03-12-2002
WO 9725781	A	17-07-1997	SG	46174 A1	20-02-1998
			CN	1183197 A	27-05-1998
			EP	0847630 A2	17-06-1998
			WO	9725781 A2	17-07-1997
			US	6020936 A	01-02-2000
JP 11055582	A	26-02-1999	NONE		